DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-019075
Date Inspected: 31-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Mr. Geng Wei

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 007897 (Scanning Face C)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

1. AP3031-001-285, 289, 293, 301, 305, 309, 315, 319, 333, 339
2. AP3031-001-343, 349, 355, 361, 365, 381, 387, 393, 399, 403
3. AP3031-001-597, 603, 607, 623, 627, 633, 639, 643, 649, 655
4. AP3031-001-671, 677, 683, 687, 693, 699, 701, 717, 721, 725
5. AP3031-001-869, 873, 903, 909, 913, 917, 921, 925, 933, 949

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3020Y-034 located on Longitudinal Diaphragm to Bottom Plate of the OBG Segment 14W. ZPMC Welders are identified as 047864. ZPMC Quality Control (QC)

is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020M-142 located on Longitudinal Diaphragm to Bottom Plate of the OBG Segment 14W. ZPMC Welder is identified as 066942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-P-2212-Tc-U4b-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020D-052 located on Floor Beam to Bottom Plate at panel point PP128.3 of the OBG Segment 14W. ZPMC Welders are identified as 047866, 202122 and 066239. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2232-ESAB.

SMAW repair welding of weld joint SEG3020V-075 located on Longitudinal Diaphragm to Floor Beam corner joint of OBG Segment 14W. ZPMC Welder is identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2622.

SMAW repair welding of weld joint SEG3020W-036 located on Longitudinal Diaphragm to Floor Beam corner joint of OBG Segment 14W. ZPMC Welder is identified as 047864. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2623.

FCAW welding of weld joint SEG3020L-266 to 270 located on Floor Beam to Side Plate of the OBG Segment 14W. ZPMC Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2233-ESAB.

FCAW welding of weld joint SEG3020L-13 and 19 located on Floor Beam to Side Plate of the OBG Segment 14W. ZPMC Welder is identified as 058245. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2233-ESAB.

FCAW welding of weld joint SEG3020L-17 and 18 located on Floor Beam to Side Plate of the OBG Segment 14W. ZPMC Welder is identified as 201215. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2233-ESAB.

Description of Incident: During the Quality Assurance random visual inspection of welds located on Segment 14W, this Quality Assurance Inspector (QA) observed ZMPC personnel performing gouging on Floor beam to longitudinal diaphragm corner weld, because of ZPMC UT repair. Over all inspection of this weld, more than 50% weld lengths are defect marked by ZMPC personnel. The weld is identified as SEG3020Q-058. This weld is a Complete Joint Penetration (CJP) weld joining the Floor Beam to Longitudinal Diaphragm. The Floor Beam to Longitudinal Diaphragm weld is identified as SPCM. This weld is designated as Seismic Performance Critical Member (SPCM). OBG segment 14W is located West Side of Bay 14 area. The ZPMC QC is identified as Mr. Li Ming Yang. QA inform to ZPMC that prior to the repair welding, to prepare CWR and ensure with VT and MT all defect have been removed. See the attaché picture.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel,Hiranch	QA Reviewer